

CONT  
F1 2  
22. The method of claim 21, further comprising:  
identifying a source of the communication received on the first port of the bridge.

F2 4  
25. The method of claim 21, wherein the bridge includes a client port not included within the first plurality of ports and the communication is a multicast packet, the method comprising:  
receiving the multicast packet on the client port;  
identifying a group identifier within the multicast packet; and  
sending the multicast packet out on those ports having the same group identifier as the group identifier within the received multicast packet.

F3 6  
27. The method of claim 21, further comprising:  
assigning a protocol type to each group identifier;  
wherein, for each port of first plurality of ports, the protocol type identifies a communication protocol used by a station connected to the port.

F4 9  
30. A method of operating a network bridge having a first plurality of ports through which network communications pass to and from the bridge, the method comprising:  
assigning a group identifier to each port of the first plurality of ports, wherein all ports with a same assigned group identifier are in a same group;  
receiving a communication on a first port of the bridge;  
if the first port is one of the first plurality of ports, sending the communication out of the bridge on all other ports of the first plurality of ports having the same assigned group identifier as the first port;  
identifying a source of the communication received on the first port of the bridge;  
identifying a destination of the communication;  
determining a group identifier assigned to the destination; and  
if the group identifier assigned to the destination and the group identifier assigned to the source are different, sending the communication out a client port not included within the first

cont  
F4  
plurality of ports and indicating the group identifier assigned to the first port within the communication sent out the client port.

---

11  
32. A method of operating a network bridge having a first plurality of ports through which network communications pass to and from the bridge, the method comprising:

assigning a group identifier to each port of the first plurality of ports, wherein all ports with a same assigned group identifier are in a same group;

F5  
connecting a router to a client port of the bridge not within the first plurality of ports;

identifying the ports on the router connected to the network bridge;

defining, on the router, a correspondence between the identified ports connected to the network bridge and each distinct group identifier;

receiving a communication on a first port of the bridge;

if the first port is one of the first plurality of ports, sending the communication out of the bridge on all other ports of the bridge having the same assigned group identifier as the first port;

identifying a source of the communication received on the first port of the bridge;

identifying a destination of the communication;

determining a group identifier assigned to the destination; and

if the group identifier assigned to the destination and the group identifier assigned to the source are different, sending the communication out the client port.

---

15  
36. A computer program product for use with a network device having a computer and a first plurality of ports on which network communications pass to and from the network device, wherein the network device includes a client port not within the first plurality of ports, and the computer program product comprises computer program instructions that when executed by the computer direct the computer to perform a method of directing the network communications, the method comprising:

F6  
assigning a group identifier to each port of the first plurality of ports, wherein all ports with a same assigned group identifier are in a same group;

receiving a communication on a first port of the network device;

if the first port is one of the first plurality of ports, sending the communication out of the network device on all other ports of the first plurality of ports having the same assigned group identifier as the first port;

receiving a multicast packet having a multicast destination address on the client port;  
identifying a group identifier within the multicast packet; and  
sending the multicast packet out on those ports having the same group identifier as the group identifier within the received multicast packet,

wherein the group identifier is removed from the multicast packet before sending the multicast packet out from the network device.

16  
37. The computer program product of claim 36, wherein the method further comprises:  
15  
identifying a source of the communication received on the first port.

---

18  
40. A computer program product for use with a network device having a computer and a first plurality of ports on which network communications pass to and from the network device, the computer program product comprising computer program instructions that when executed by the computer direct the computer to perform a method of directing the network communications, the method comprising:

#7  
assigning a group identifier to each port of the first plurality of ports, wherein all ports with a same assigned group identifier are in a same group;

receiving a communication on a first port of the network device;

if the first port is one of the first plurality of ports, sending the communication out of the network device on all of the ports of the first plurality of ports having the same assigned group identifier as the first port;

identifying a source of the communication received on the first port;

identifying a destination of the communication;

determining a group identifier assigned to the destination; and

if the group identifier assigns to the destination and the group identifier assigned to the source are different, sending the communication out a client port not within the first plurality of ports, indicating the group identifier of the first port within the communication sent out the client port and replacing a redundant field within the communication with the group identifier.

---